DETAILED ACTION

1.   This communication is responsive to Amendment filed 01/15/2008.

        Claims 8, 12-16 are pending in this application. Claims 8, 14 are independent claims. In
the Amendment, claims 9-11 have been cancelled, claims 8, 12, 13 have been amended, claim
14-16 have been added.

EXAMINER'S AMENDMENT

2.   An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

        Authorization for this examiner's amendment was given in a telephone interview with

Applicant's representative, Jennifer Teng, on April 07, 2008.

        The application has been amended as follows:

   - **Cancel claims 12, 13**

   - **Claim 8 has been amended as:**

        A data search system comprising a data center for gathering data from a plurality

of biological information databases and for distributing data and a user's facility for

receiving the data distributed from the data center to use the data for a data search, the

data center including at least one computer which comprises:

        means for downloading data from a plurality of biological information databases;

means for generating link information which shows how the plurality of biological

information databases are associated by extracting information on how a data entry in

a database associates with another data entry in another database from the

downloaded data;

    means for generating detailed information by extracting an ID of a data entry and

an explanation of the data entry from each data entry, in the downloaded data;

    means for generating data for homology search by extracting the ID and

sequence data of the data entry from said each data entry, in the downloaded data;

    a route table in which information of permitted routes among the biological

information databases is stored;

    means for distributing to the user's facility the link information, the detailed

information of said each data entry, the data for homology search, and the route table,

and the user's facility including at least one computer which comprises:

    means for conducting the data search using the link information, the detailed

information of said each data entry, the data for homology search, and the route table

distributed from the data center, <u>wherein the route table stores a data search rule which</u>

<u>restricts searches routes for each database of the plurality of biological information</u>

<u>databases, and wherein the means for conducting the data search in the user's facility</u>

<u>conducts the data search by following only the permitted routes which are defined in the</u>

<u>route table and among search routes indicated by the link information.</u>

- **Cancel claims 15, 16**

- **Claim 14 has been amended as:**

A data search method implemented by a data center and a user's facility,

comprising:

gathering by a computer in the data center data from a plurality of biological

information databases by: downloading data from a plurality of biological

information databases; generating link information which shows how the plurality of

biological information databases are associated by extracting information on how a

data entry in a database associates with another data entry in another database from

the downloaded data; generating detailed information by extracting an ID of a data

entry and an explanation of the data entry from o-f each data entry in the downloaded

data; generating data for homology search by extracting the ID and sequence data of

the data entry from each data entry in the downloaded data; and maintaining a route

table in which information of permitted routes among the biological information

databases is stored;

distributing by the computer in the data center to the user's facility the link

information, the detailed information of said each data entry, the data for homology

search, and the route table; and

conducting by a computer in the user's facility the data search using the link

information, the detailed information of said each data entry, the data for homology

search, and the route table distributed from the data center, <u>wherein the route table</u>

<u>stores a data search rule which restricts searches routes for each database of the</u>

<u>plurality of biological information databases, and wherein the step of conducting the</u>

<u>data search in the user's facility is conducted by following only the permitted routes</u>

<u>which are defined in the route table and among search routes indicated by the link</u>

<u>information</u>.

Reasons for Allowance

3.   Claims 8, 14 are allowed, now renumbered as 1-2.

4.   The following is a statement of reasons for the indication of allowable subject matter:

The present invention is directed to a method of retrieving information from a

plurality of databases in which information about biological substances, such as

sequences of bases and proteins are stored, by associating the databases with one

another and thus clarifying the connections among them.

Claim 8 recites, or similarly recites, in combination with the remaining elements, a data

search system comprising:

a route table in which information of permitted routes among the biological information

databases is stored;

means for distributing to the user's facility the link information, the detailed information of

said each data entry, the data for homology search, and the route table, and the user's facility

including at least one computer which comprises:

means for conducting the data search using the link information, the detailed information

of said each data entry, the data for homology search, and the route table distributed from the

data center, wherein the route table stores a data search rule which restricts searches routes for

each database of the plurality of biological information databases, and wherein the means for conducting the data search in the user's facility conducts the data search by following only the permitted routes which are defined in the route table and among search routes indicated by the link information.

The closest prior art, et al. Vanska et al. (U.S. Patent No. 6,654,755), shows a similar data search technique includes gathering and storing data from a plurality of sources of data. The gathered and stored data is then filtered and prioritized with low and high so that high prioritized data maybe immediately delivered to a user while low prioritized data only delivered upon user's request (Abstract). While Vanska discloses personal interests database and "user data profiles and profiled database", link information as service note and route table; and Chin et al. (U.S. Patent No. 6,470,277) teaches extracting and integrating information from various information sources and results of various analyses, and storing the integrated information in a form which facilitates identification of candidate genes (col. 2, lines 11-19), Vanska et al. and Chin et al., singularly or in combination, still fail to anticipate or render the above cited limitations obvious.

Claim 14 recites, or similarly recites, in combination with the remaining elements, a data search method comprising the steps of:

distributing by the computer in the data center to the user's facility the link information, the detailed information of said each data entry, the data for homology search, and the route table; and

conducting by a computer in the user's facility the data search using the link information, the detailed information of said each data entry, the data for homology search, and the route table distributed from the data center, wherein the route table stores a data search rule which restricts searches routes for each database of the plurality of biological

information databases, and wherein the step of conducting the data search in the user's facility is conducted by following only the permitted routes which are defined in the route table and among search routes indicated by the link information.

The closest prior art, et al. Vanska et al. (U.S. Patent No. 6,654,755), shows a similar data search technique includes gathering and storing data from a plurality of sources of data. The gathered and stored data is then filtered and prioritized with low and high so that high prioritized data maybe immediately delivered to a user while low prioritized data only delivered upon user's request (Abstract). While Vanska discloses personal interests database and "user data profiles and profiled database", link information as service note and route table; and Chin et al. (U.S. Patent No. 6,470,277) teaches extracting and integrating information from various information sources and results of various analyses, and storing the integrated information in a form which facilitates identification of candidate genes (col. 2, lines 11-19), Vanska et al. and Chin et al., singularly or in combination, still fail to anticipate or render the above cited limitations obvious.

5.   Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Conclusion

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (571) 272-4112. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John R. Cottingham, can be reached on (571) 272-7079. The fax number to this Art

Unit is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be

directed to the Group receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Miranda Le/
Primary Examiner, Art Unit 2167